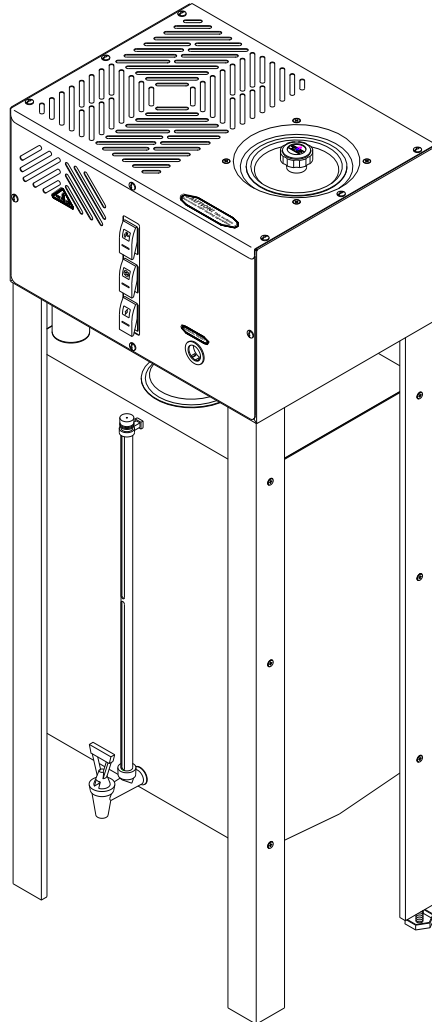




REPLACEMENT PARTS MANUAL

FOR MODEL: PWS 12-20(120VAC), PWS 12-20(240VAC), AED-1(120VAC), AED-1(240VAC), APK-1(120VAC) & APK-1(240VAC)

PART #	510001	510003	500006	500015	500007	500016
SERIES	0007	0007	0001	0001	0001	0001



PRECISION WATER SYSTEMS WATER DISTILLER

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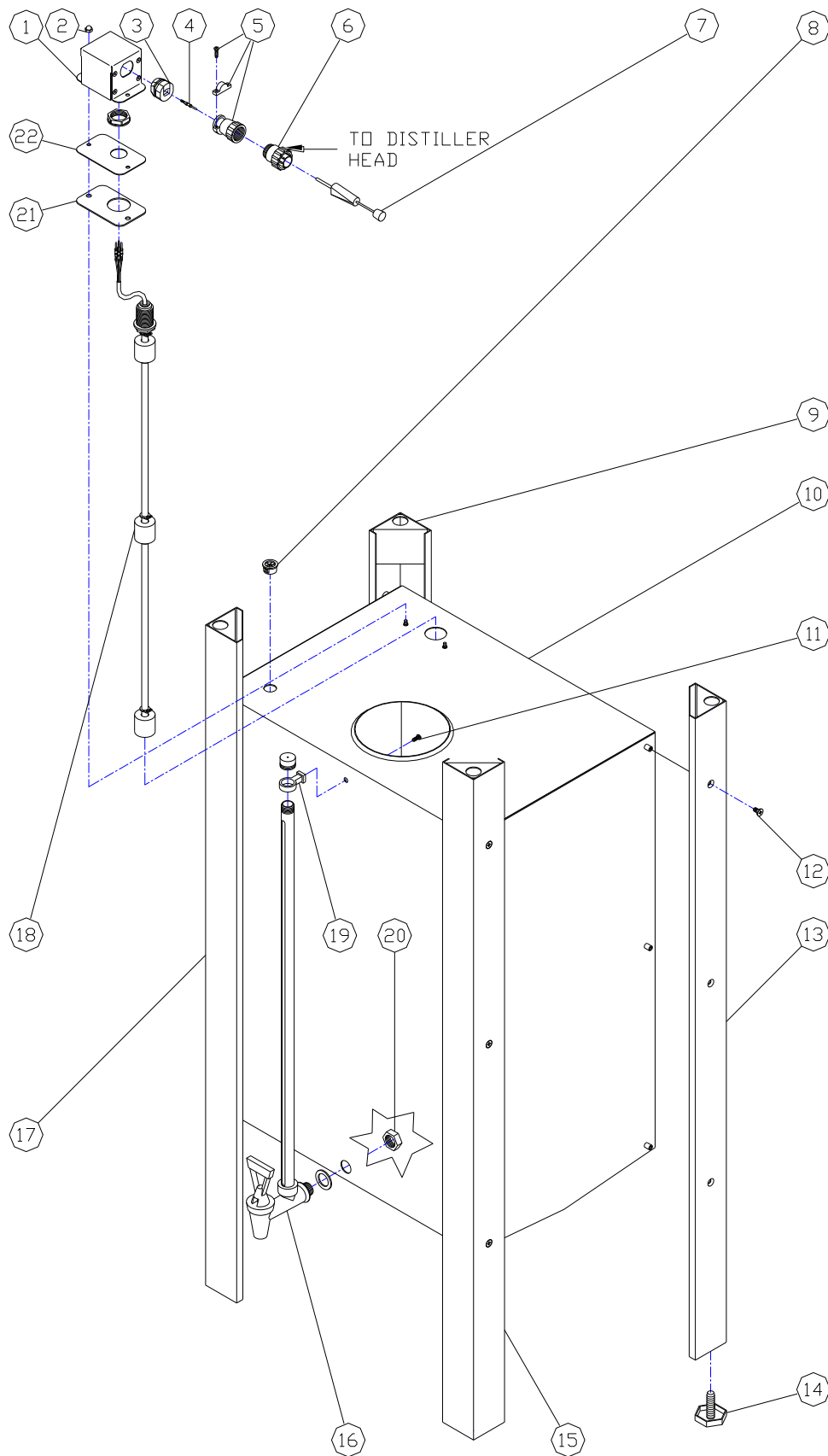
094102S7, Exploded Parts List

Holding Tank Assembly, 12-20 Automatic

Item #	Part #	Description	Qty
1	500133	Cover, Holding Tank Wires	1
2	028001	Nut, Acorn, 6-32 Pltd.	2
3	054002	Strain Relief, 7K-2	1
4	060016	Male Pin	4
5	060045	Strain Relief, 7 pin, Circular	1
6	060043	Plug, 7 pin, Circular	1
7	080134	Circular Pin Extraction Tool	1
8	054005	Bushing, Wire, 5/8'	1
9	510140	Leg, Left Rear, 12-20	1
10	510163	Holding Tank WA, 20 Gallon	1
11	012013	Screw, Mach, #10-24 x 3/8" SS	1
12	012008	Screw, Mach, #10-24x3/8", OvalHd	12
13	510141	Leg, Right Rear, 12-20	1
14	080126	Appliance Foot, 5/16 x 1-1/2"	2
15	510143	Leg, Right Front, 12-20	1
16	080123	Valve, HT, 23" (includes nut, washer & support)	1
17	510142	Leg, Left Front, 12-20	1
18	510159	HT 25" Level Sensor Assembly, SS	1
19	080131	Support, SG, 3/4, Blk	1
20	080132	Nut, Jam, 3/8", Blk	1
21	500326	Gasket, Level Sensor	1
22	500325	Plate, Level Sensor	1

094102S7, Exploded Parts List

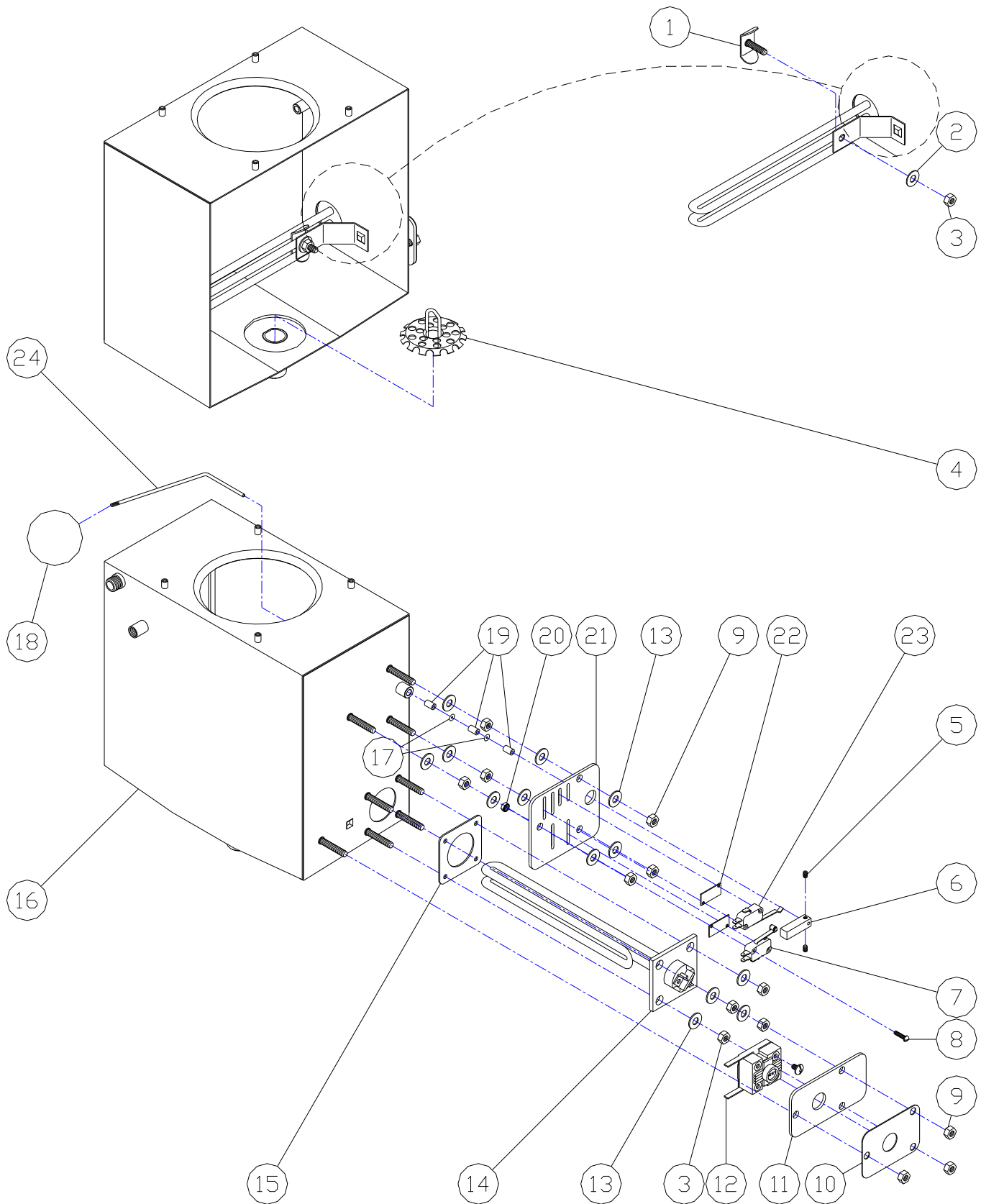
Holding Tank Assembly, 12-20 Automatic



094112S4, Exploded Parts List Boiler Assembly, 12GPD Automatic

Item #	Part #	Description	Qty
1	500182	Clip, Heater, Studded	1
2	018009	Washer, 5/16" x 1-1/4" x 18ga SS	1
3	025000	Nut, Hex, 1/4" SS	5
4	500208	Drain Strainer WA	1
5	016014	Set Screw, Blk, #6-32 x .25", Cup Pt.	2
6	500278	Bar Actuator, Boiler Float	1
7	060058	Microswitch, Short Roller Arm	1
8	012003	Screw, Machine, Pltd, #4-40 x 3/4"	4
9	025002	Nut, Hex, 1/4" Pltd.	9
10	500153	Cover, Reset, SS	1
11	400010	Reset Plate, Lexan	1
12	060000	Switch, Thermo-reset	1
13	018004	Washer, 5/16" x 11/16" x 20ga SS	11
14	060003	Heating Element, 125V, 1500W	1
	060004	Heating Element, 230V, 1500W	1
15	500100	Gasket, Heater	1
16	510146	Boiler WA, 12GPD Auto, Series2	1
17	080128	O-Ring, 1/16" x 1/8" x 1/4"	2
18	080162	Float Ball, SS, 2-1/4" Round, #6-32	1
19	080127	Bushing, Nylon	3
20	026003	Nut, Kep, #4-40	4
21	500266	Plate, Microswitch	1
22	500289	Shim, Microswitch	2
23	060059	Microswitch, Long Arm, Formed	1
24	500264	Rod, Boiler Float	1

094112S4, Exploded Parts List **Boiler Assembly, 12GPD Automatic**

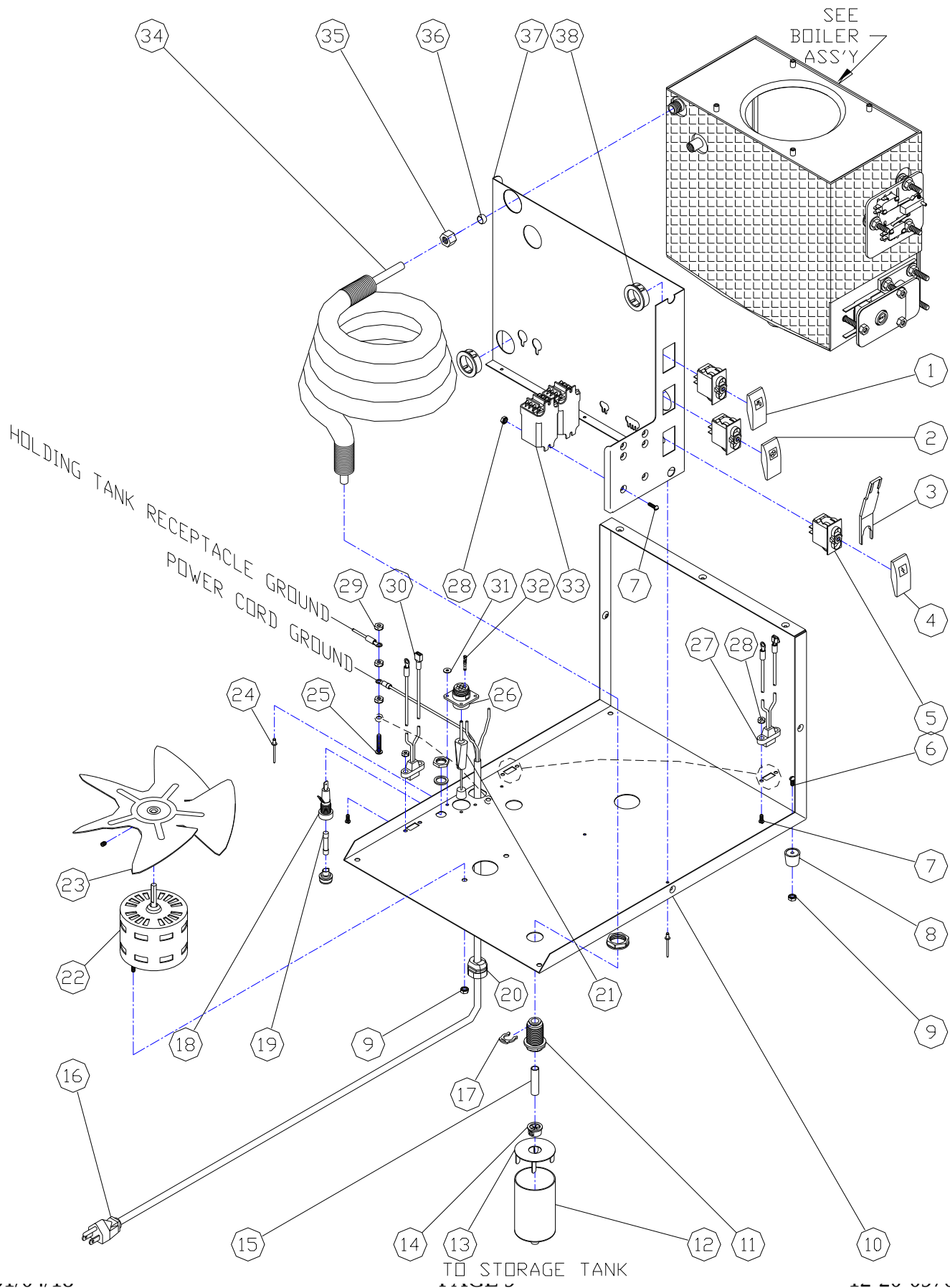


094101S6, Exploded Parts List

Distiller Body Assembly, 12GPD Automatic

Item #	Part #	Description	Qty
1	060031	Actuator, Grey, White-Water	1
2	060030	Actuator, Grey, Amber-Fan	1
3	080134	Tool, Actuator Removal	1
4	060029	Actuator, Grey, Red-Power	1
5	060028	Switch Base, 120/240V SPST	3
6	012012	Screw, Mach, Pltd. #8-32 x 5/8"	4
7	012009	Screw, Mach, Pltd. #6-32x1/2"	8
8	054010	Leg, 3/4"OD x x5/8" high	4
9	026001	Nut, Kep, Pltd. #8-32	6
10	510100	Body, 12GPD Auto	1
11	034011	Bulkhead, 3/8" JG	1
12	500300	Filter Housing W.A., Auto	1
13	500260	Filter Cap W.A.	1
14	054005	Busing, Wire, Plastic, 5/8" Hole	1
15	500202	Tube, SS, 3/8" Diameter X 1.5"	1
16	510121	Power Cord Assembly, 14-3 NA, 12 GPD Automatic	1
17	034021	Locking Clip, 3/8" JG	1
18	060036	Fuse Holder, Chassis, 15Amp (includes nut & gasket)	1
19	060022	Fuse, 1 Amp, Slow Blow	1
20	054002	Strain Relief, 7K-2	1
21	080135	Circular Pin Extraction Tool	1
22	060049	Motor, 120/240 Dual Voltage	1
23	080046	Fan Blade, 8"	1
24	016004	Rivet, Aluminum, 1/8" x 5/16"	6
25	012000	Screw, Machine, Pltd, #10-24 x 1"	1
26	060044	Receptacle, 7 pin Circular	1
27	510123	Pump Receptacle Assy, 12GPD Auto	1
28	026002	Nut, Kep, Pltd., #6-32	8
29	026000	Nut, Kep, Pltd., #10-24	3
30	510124	Drain Receptacle Assy, 12GPD Auto	1
31	018001	Washer, Flat, 1/8" x 3/8" x 20ga Alum	2
32	060017	Female Pin	4
33	060020	Relay, Shrack, DPDT, 120V	2
	060021	Relay, Shrack, DPDT, 240V	2
34	510135	Cooling Coil Assy, 12GPD Auto	1
35	030013	Nut, Pltd, 3/8" Comp.	1
36	030012	Ferrule, 3/8"	1
37	510101	Divider, 12GPD Auto	1
38	054004	Bushing, Snap, 1-1/4"	2

094101S6, Exploded Parts List Distiller Body Assembly, 12GPD Automatic

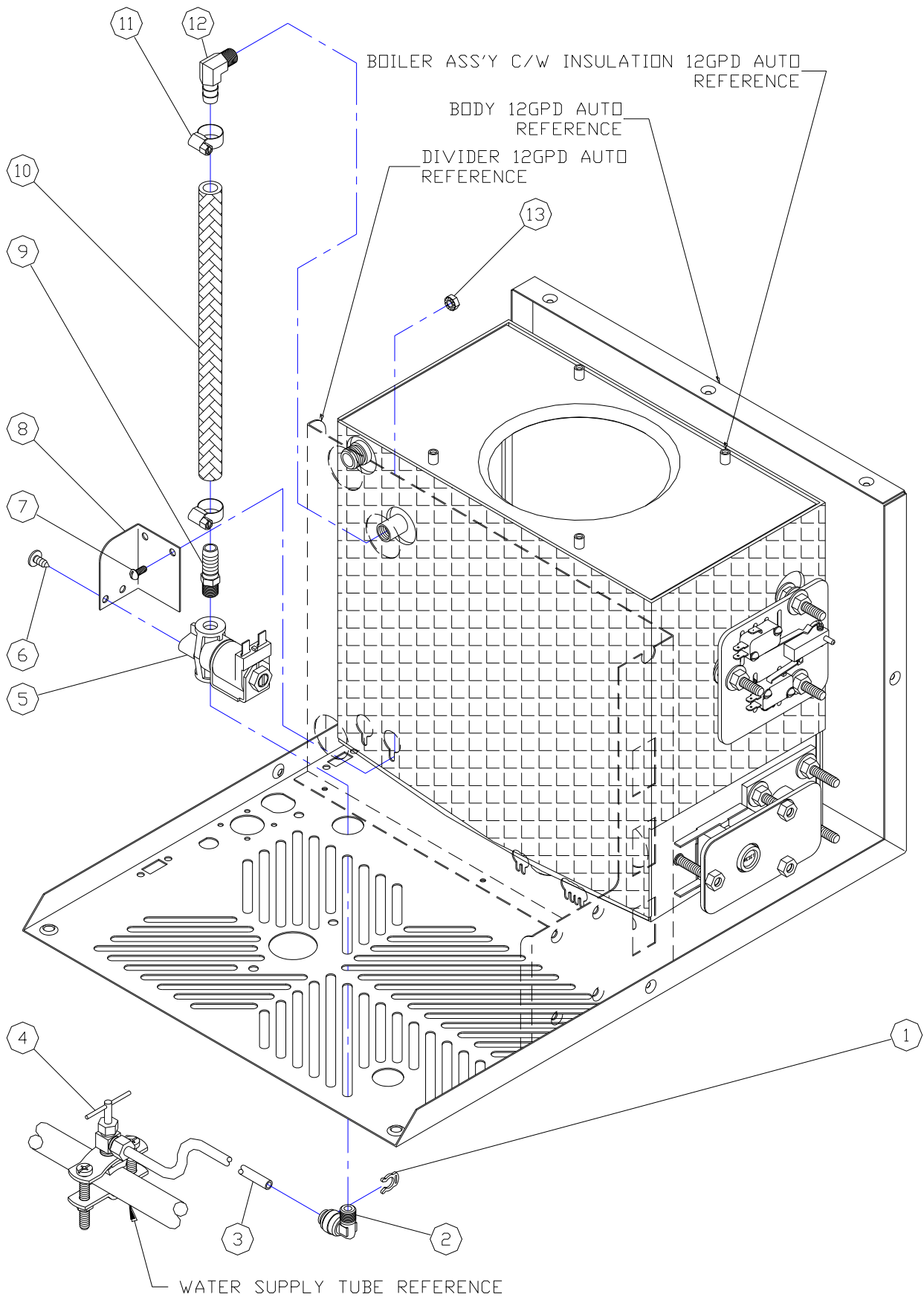


094099S3, Exploded Parts List 12GPD Solenoid Valve Assembly

Item #	Part #	Description	Qty
1	034009	Locking Clip, 1/4" JG	1
2	034006	Elbow, 90, 1/8MPTx1/4" JG	1
3	052000	Tubing, 1/4" Feed-line	16
4	036005	Valve, Self Piercing Kit	1
5	060026	Solenoid Valve, 1/8FPT BE, 120V	1
	060027	Solenoid Valve, 1/8FPT BE, 240V	1
6	010000	Screw, ShtMtl #10-12x1/2", SS	2
7	012012	Screw, Mach, #8-32x5/8", Pltd.	2
8	500166	Bracket, Solenoid Valve	1
9	034024	Coupler, Nylon, 1/8"MPTx3/8"HB	1
10	052004	Tubing, 3/8x0.6 Braided	1
11	080056	Gear Clamp, SS, 1/4"	2
12	030003	Elbow, 90, 1/8"MPTx3/8"HB	1
13	026001	Nut, Kep,#8-32	2

094099S3, Exploded Parts List

12GPD Solenoid Valve Assembly



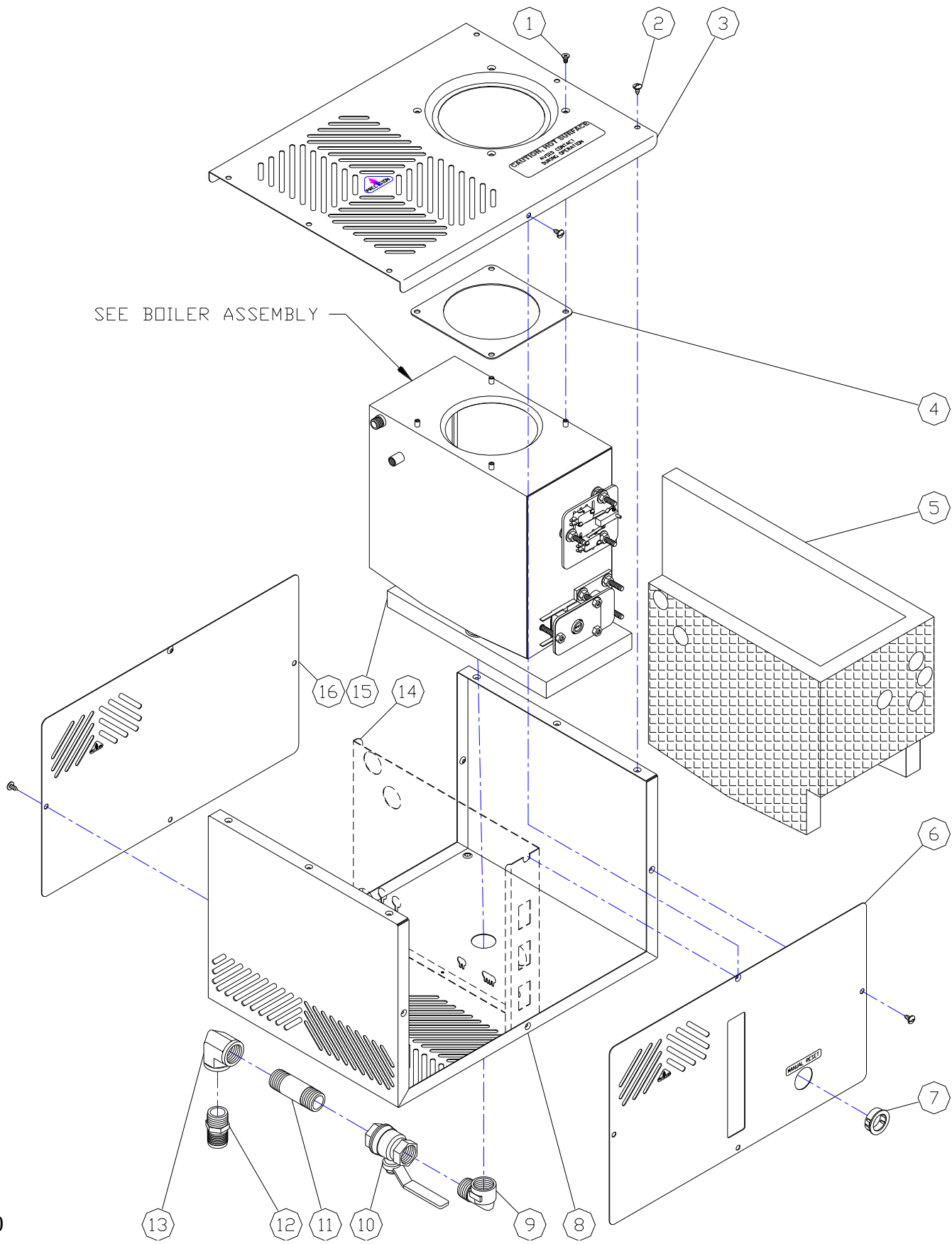
094098S3, Exploded Parts List

Distiller Head Assembly, 12GPD Automatic

Item #	Part #	Description	Qty
1	012008	Screw, Mach, #10-24x3/8", Oval Hd	4
2	010000	Screw, Sht Mtl, #10-12 x 1/2", SS	14
3	510102	Cover, Top, 12GPD, Auto	1
4	500111	Gasket, Lid	1
5	510118	Insulation, 12GPD Boiler Sides	1
6	510103	Cover, Front, 12GPD	1
7	054005	Bushing, Snap, 1.25"	1
8	510100	Body, 12GPD	1
9	030018	Elbow, 90, 3/4 FPT BE	1
10	030009	Valve, Ball, 3/4 FPT BE, FF	1
11	030021	Nipple, 3/4 MPT x 3"	1
12	030015	Coupler, 3/4 MPT x 1" HB	1
13	030016	Elbow, 90, 3/4 MPT x 3/4 FPT	1
14	510101	Divider, 12GPD	1
15	510119	Insulation, 12GPD Boiler Bot.	1
16	510104	Cover, Rear, 12GPD	1

094098S3, Exploded Parts List

Distiller Head Assembly, 12GPD Automatic

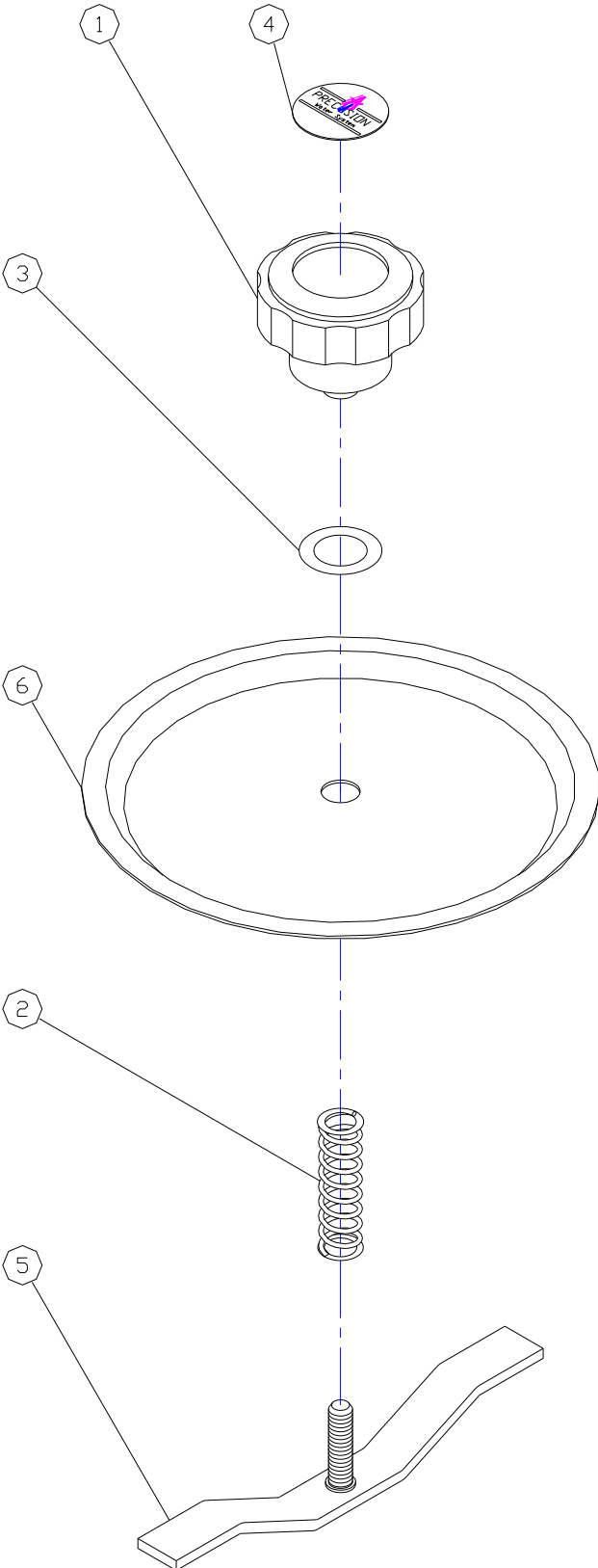


094074A, Exploded Parts List

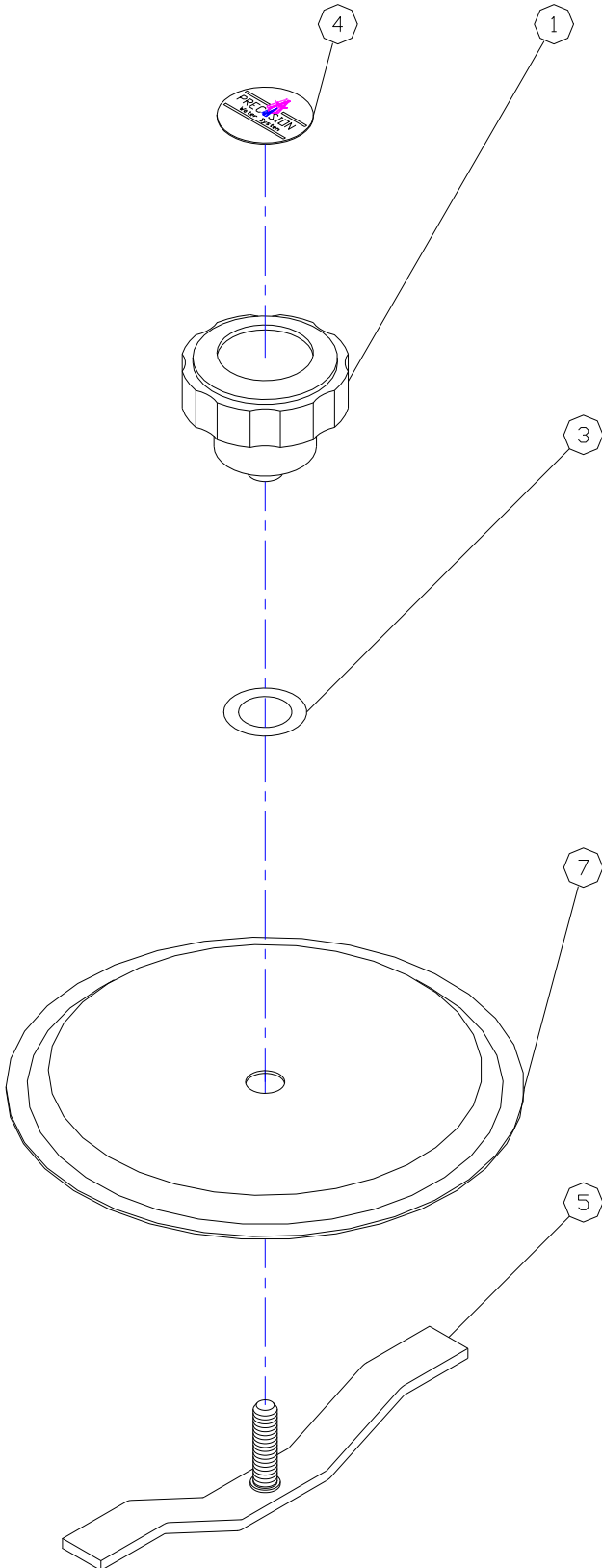
Boiling Tank & Holding Tank Lids Assemblies

<u>Item #</u>	<u>Part #</u>	<u>Description</u>	<u>Qty</u>
1	080053	Knob, Black Phenolic, 1/4-20	1
2	080058	Spring, BT, Lid, SS	1
3	080064	O-Ring, Lid Knob, Buna 112	1
4	080106	Inlay, Knob, PWS	1
5	500115	Tee Bar, Studded, 5.5"	1
6	500118	Lid, B/T, Disc, SS, 5/5"	1
7	500119	Lid, H/T, Disc, SS, 5.5"	1

094074A, Exploded Parts List
Boiling & Holding Tank Lids Assemblies, PWS



BOILING TANK
LID ASSEMBLY
(PART # 500184)



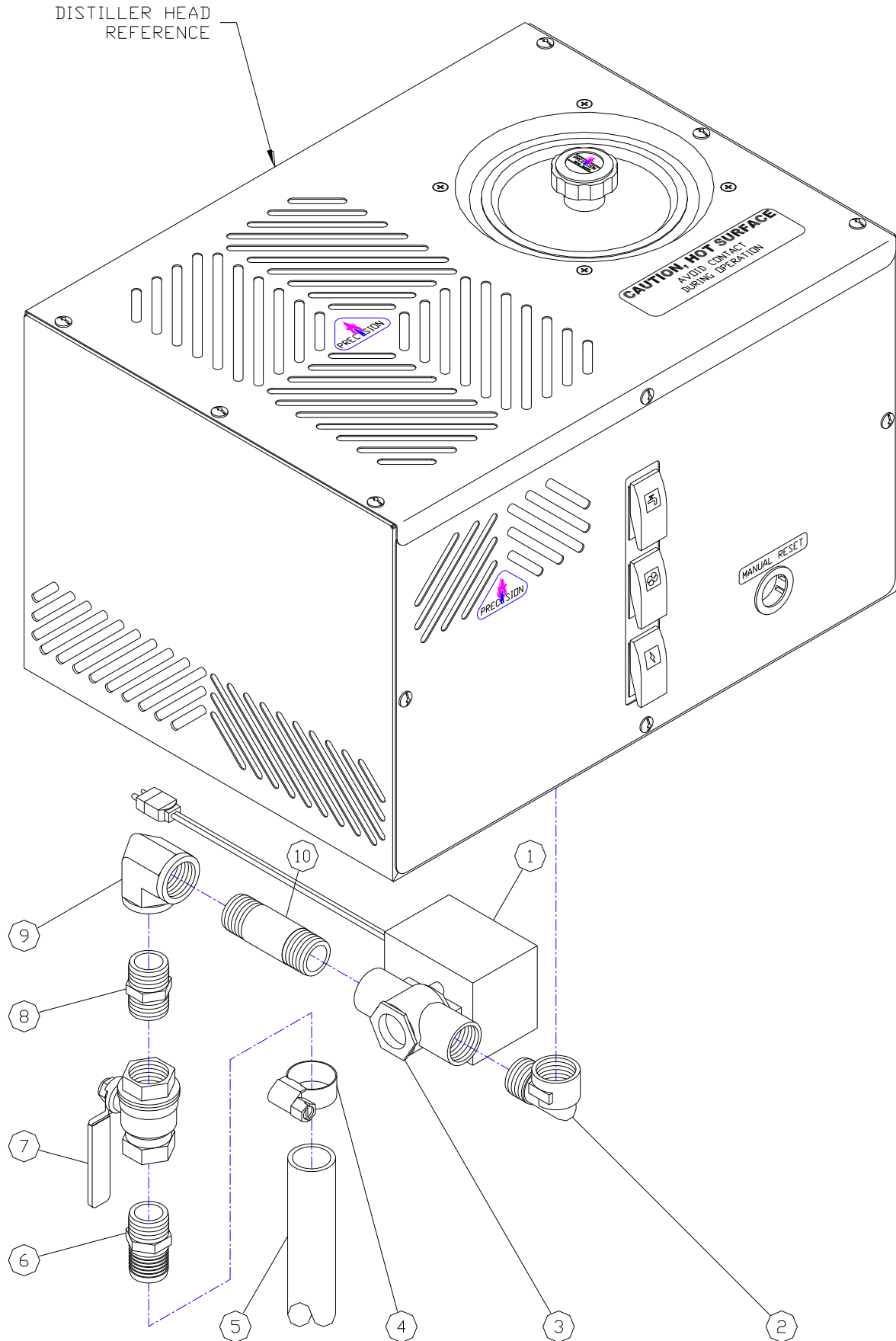
HOLDING TANK
LID ASSEMBLY
(PART # 500248)

094096-, Exploded Parts List
Automatic Electric Drain Assembly, AED-1

Item #	Part #	Description	Qty
1	080076	Motor, Drain Valve, 120V	1
	080082	Motor, Drain Valve, 240V	1
2	030016	Elbow, 90, 3/4 "FPT x 3/4" MPT	1
3	080077	Valve, Drain, 3/4FPT, NO	1
4	080121	Clamp, Gear, 1-1/4"	1
5	052005	Tubing, 1x1-1/4"	1
6	030015	Coupler, 3/4MPTx1"HB	1
7	030009	Valve, Ball, 3/4FPT BE, FF	1
8	030017	Nipple, Close, 3/4MPT	1
9	030018	Elbow, 90, 3/4FPT	1
10	030021	Nipple, 3/4MPT x 3"	1

094096-, Exploded Parts List

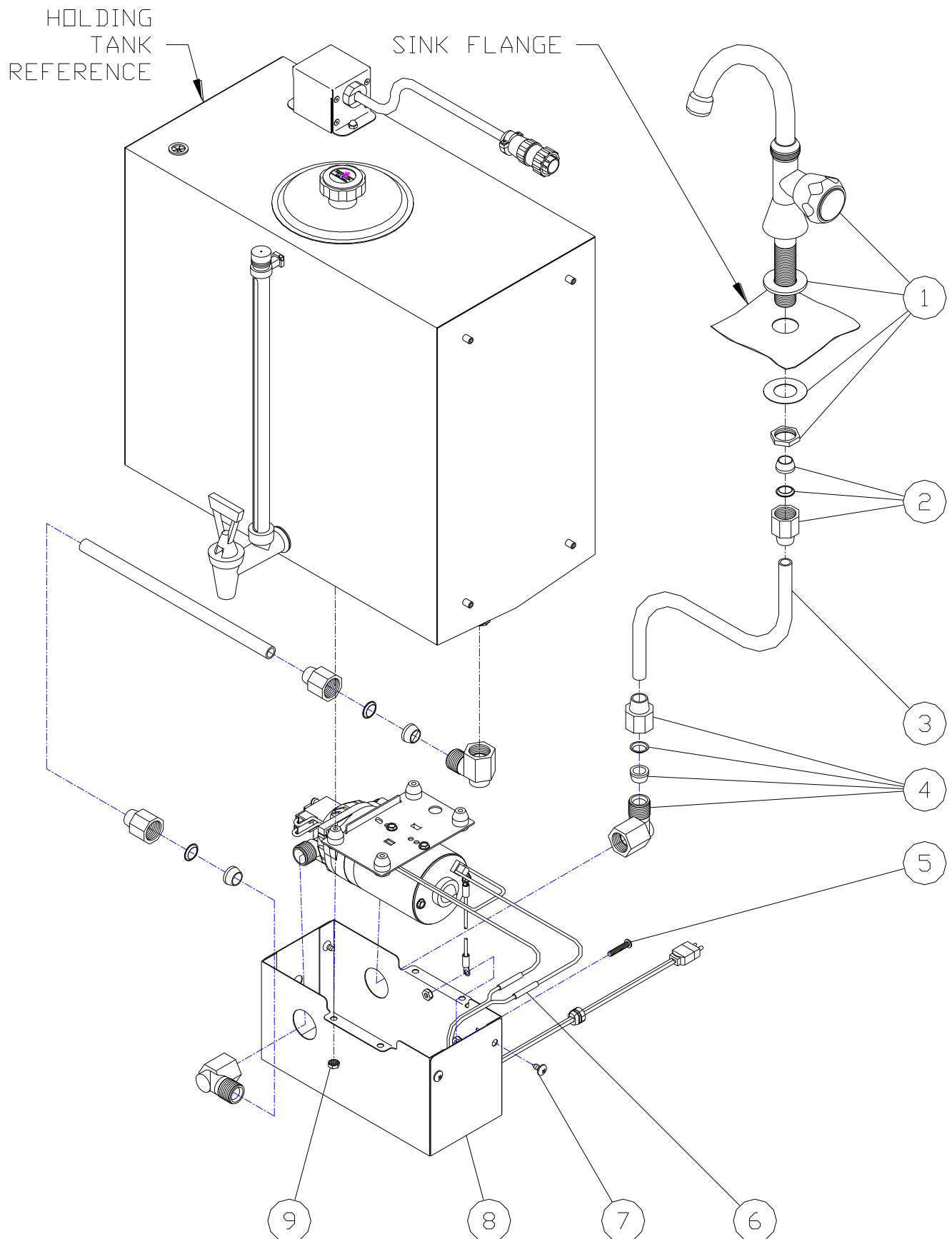
Automatic Electric Drain Assembly, AED-1



094094-, Exploded Parts List Automatic Pump Assembly, APK-1

Item #	Part #	Description	Qty
14	080052	Faucet, Chrome	1
15	034003	Nut/Cone/Ring Set, 1/2" OD	1
3	052001	Tubing, LDPE, 3/8" x 1/2"	1
4	034022	Elbow, 90, 1/2FPT x 1/2OD Tube	3
5	012000	Screw, Mach, Pltd, #10-24 x1	1
6	066006	Butt Splice, 18-22AWG, Red	2
7	010002	Screw, Shtmtl, Pltd, #10-12 x 1/2"	4
8	500191	Pump Box	1
9	026000	Nut, Kep, #10-24	6

094094-, Exploded Parts List Automatic Pump Assembly, APK-1

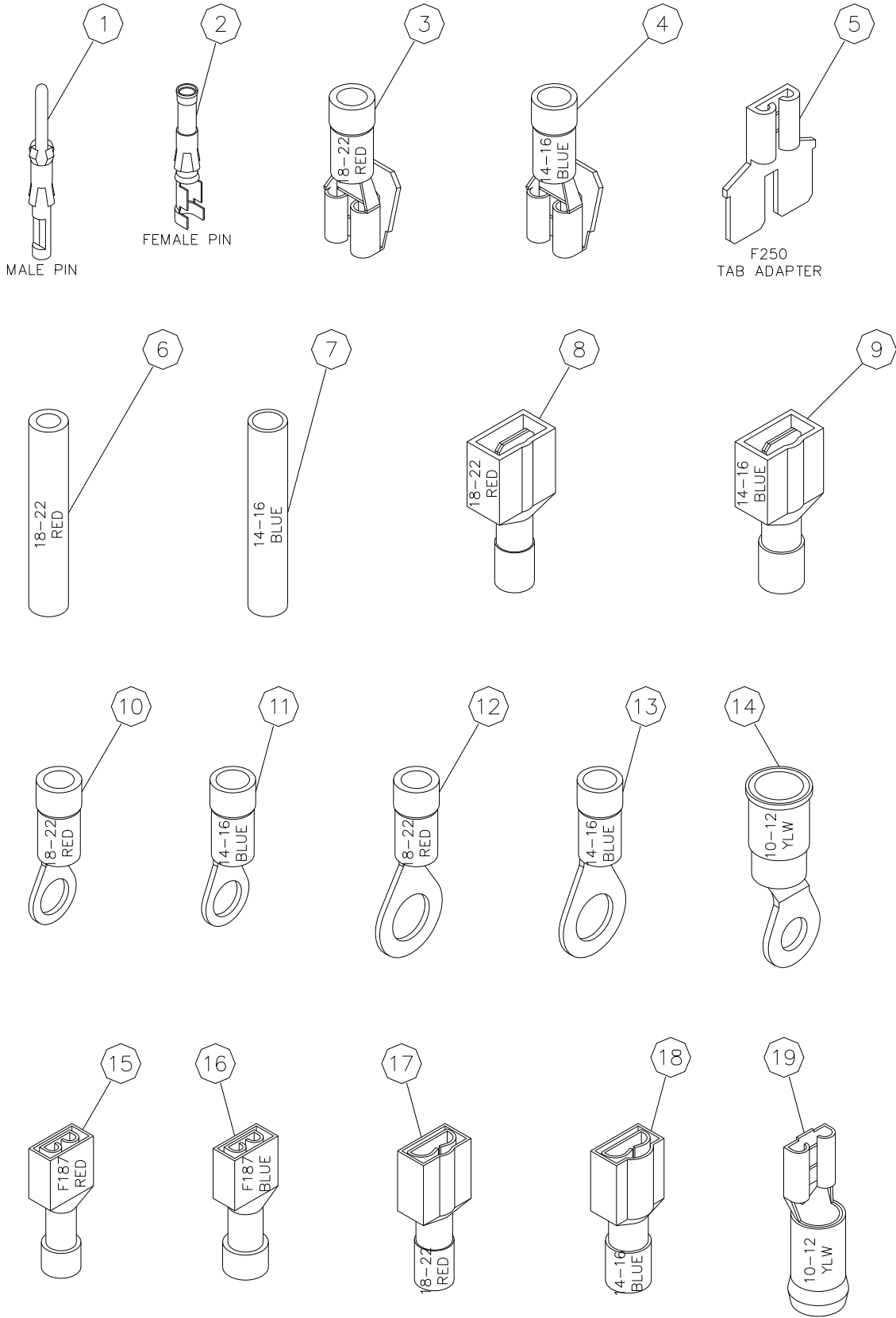


094109-, Exploded Parts List

Electrical Terminals

Item #	Part #	Description
1	060016	Pin, Male, Circular
2	060017	Pin, Female, Circular
3	066014	Receptacle, Pigg, F250, #18-22 AWG, Red
4	066004	Receptacle, Pigg, F250, #14-16 AWG, Blue
5	066013	Tab Adapter, F250
6	066006	Butt Splice, #18-22 AWG, Red
7	066005	Butt Splice, #14-16 AWG, Blue
8	060012	Tab, 250, #18-22 AWG, Red
9	066011	Tab, 250, #14-16 AWG, Blue
10	066008	Ring, #10, #18-22 AWG, Red
11	066007	Ring, #10, #14-16 AWG, Blue
12	066010	Ring, ¼", #18-22 AWG, Red
13	066009	Ring, ¼", #14-16 AWG, Blue
14	066016	Ring, #10, #10-12 AWG, Yellow
15	066003	Receptacle, F187, #18-22 AWG, Red
16	066001	Receptacle, F187, #14-16 AWG, Blue
17	066002	Receptacle, F250, #18-22 AWG, Red
18	066000	Receptacle, F250, #14-16 AWG, Blue
19	066015	Receptacle, F250, #10-12 AWG, Yellow

094109-, Exploded Parts List
Electrical Terminals



Wiring List, Precision Pure 12-20 (12 GPD Auto), PART # 510126-Series 6

No.	Part#	Color	Ga	Length	From Conn.	ToConn.	From Location	To Location
1	510121	GRN	16	3"	#10RING#14-16	POWER CORD	GROUND	POWER CORD
2	510121	BLK	16	17.5"	F250 #14-#16	POWER CORD	POWER SWITCH #2	POWER CORD
3	510121	WHT	16	18.5"	#10RING#14-16	POWER CORD	RESET SWITCH #4	POWER CORD
4	510122	BLKor	18	12"	PIGG#18-#22&F250#18-#22	FAN MOTOR (ORG/BLU)	HEATER RELAY #4	FAN MOTOR
5	510122	BLKor	18	12"	F250 #18-#22&PIGG#18-#22	FAN MOTOR (YLW/WHT)	FAN SWITCH #2	FAN MOTOR
6								
7								
8								
9	095001	BLK	16	7"	#10RING#14-#16	F187 #14-16	RESET SWITCH #1	Lower Microswitch COM
10	095033	GRN	16	23"	PIGG#14-#16	F250 #14-#16	HEATER RELAY "B"	SOLENOID VALVE A
11	095034	BLK	16	26"	F187 #14-16	F250 #14-#16	Upper Microswitch COM	SOLENOID VALVE B
12	510123	BLK	18	3.5"	F250 #18-#22	PUMP RECEPTACLE	FUSE SIDE	PUMP RECEPTACLE (SMOOTH)
13	510123	BLK	18	24"	#10RING#18-#22	PUMP RECEPTACLE	RESET SWITCH #3	PUMP RECEPTACLE
14	095035	ORG	16	20"	#10RING#14-16	FPIN	RESET SWITCH #3	HOLDING TANK RECEPTACLE #1
15	095036	BLU	16	19"	F250 #14-#16	FPIN	HEATER RELAY #6	HOLDING TANK RECEPTACLE #2
16	095004	YLW	16	7"	PIGG#14-#16	FPIN	SOLENOID VALVE A	HOLDING TANK RECEPTACLE #3
17	095037	RED	16	22"	F250 #14-#16	FPIN	PUMP RELAY "B"	HOLDING TANK RECEPTACLE #4
18	095006	RED	16	8"	F250 #14-#16	#10 RING #14-#16	POWER SWITCH #3	RESET SWITCH #2
19	510124	BLK	18	20"	PIGG#18-#22	DRAIN RECEPTACLE	WATER SWITCH #7	DRAIN RECEPTACLE
20	510124	BLK	18	20"	#10RING#18-22	DRAIN RECEPTACLE	RESET SWITCH #1	DRAIN RECEPTACLE
21	095007	WHT	16	4"	#10RING#14-16	#10 RING #14-#16	RESET SWITCH #1	HEATING ELEMENT "A"
22	095008	YLW	16	13"	F250 #14-#16	#10 RING #14-#16	HEATER RELAY #4	HEATING ELEMENT "B"
23	095009	BRN	16	7"	F250 #14-#16	PIGG#14-#16	PUMP RELAY "A"	POWER SWITCH #2
24	095010	WHT	16	3"	F250 #14-#16	PIGG#14-#16	PUMP RELAY #6	PUMP RELAY "A"
25	095038	GRN	16	22"	F250 #14-#16	F250 #14-#16	PUMP RELAY #9	FUSE END
26	095010	WHT	16	3"	PIGG#14-#16	F250 #14-#16	HEATER RELAY "B"	HEATER RELAY #9
27	095012	BRN	16	12"	F250 #14-#16	#10 RING #14-#16	HEATER RELAY #7	RESET SWITCH #3
28	095013	ORG	16	8"	F250 #14-#16	#10 RING #14-#16	FAN SWITCH #3	RESET SWITCH #1
29	095014	RED	16	11"	#10RING#14-16	F250 #14-#16	HEATING ELEMENT "B"	POWER SWITCH #7
30	095010	WHT	16	3"	F250 #14-#16	PIGG#14-#16	FAN SWITCH #6	POWER SWITCH #7
31	095010	WHT	16	3"	F250 #14-#16	PIGG#14-#16	FAN SWITCH #7	FAN SWITCH #2
32	095015	BRN	16	12"	F250 #14-#16	#10 RING #14-#16	FAN SWITCH #8	RESET SWITCH #4
33	095016	BLU	16	11"	F250 #14-#16	#10 RING #14-#16	POWER SWITCH #8	RESET SWITCH #4
34	095010	WHT	16	3"	F250 #14-#16	PIGG#14-#16	POWER SWITCH #6	POWER SWITCH #3
35	095017	BLU	16	10"	F250 #14-#16	F250 #14-#16	HEATER RELAY #9	WATER SWITCH #7
36	095018	GRN	16	14"	F250 #14-#16	#10 RING #14-#16	WATER SWITCH #8	RESET SWITCH #4
37	095039	BRN	16	24"	F250 #14-#16	PIGG#14-#16	WATER SWITCH #6	SOLENOID VALVE B
38	095020	YLW	16	5"	F250 #14-#16	PIGG#14-#16	WATER SWITCH #2	FAN SWITCH #3
39	095021	GRN	16	13"	F187 #14-16	F250 #14-#16	Lower Microswitch NC	HEATER RELAY "A"
40	095022	ORG	16	14"	F187 #14-16	F250 #14-#16	Upper Microswitch NC	WATER SWITCH #3

DUAL VOLTAGE WIRING DIAGRAM

The diagram illustrates the electrical connections for a boiler system, supporting both 120V and 220V operation. Key components and their connections include:

- Power Cord:** Connected to the system via a 39 GRN wire to the ground and a 9 BLK wire to the 220V line.
- Grounding:** A dedicated ground line (1 GRN) is connected to the power cord and the boiler's ground terminal (10 GRN).
- Switches:**
 - Top Switch (Water):** Controls the water supply, connected to the 120V line (17 RED) and the boiler's water supply line (36 GRN).
 - Bottom Switch (Power):** Controls the power supply, connected to the 220V line (2 BLK) and the boiler's power supply line (33 BLU).
 - Reset Switch:** A safety feature connected to the 120V line (18 RED) and the boiler's reset terminal (11 BLK).
- Relays and Motors:**
 - Heater Relay:** Controls the heating element, connected to the 120V line (22 YLW) and the boiler's heater element (29 RED).
 - Pump Relay:** Controls the pump, connected to the 120V line (24 WHT) and the boiler's pump (25 GRN).
 - Fan Motor:** A 120V/240V fan motor connected to the 120V line (20 BLK) and the boiler's fan motor (21 WHT).
 - Single Voltage Motor:** A 120V motor connected to the 120V line (20 BLK) and the boiler's single voltage motor (21 WHT).
- Terminal Blocks:**
 - Holding Tank Plug:** A 120V plug connected to the 120V line (17 RED) and the boiler's holding tank plug (12 BLK).
 - Drain Tank Plug:** A 120V plug connected to the 120V line (17 RED) and the boiler's drain tank plug (12 BLK).
- Wiring Details:** The diagram shows numerous other wires (e.g., 13 BLK, 14 GRN, 15 BLU, 16 YLW, 19 BLK, 20 BLK, 21 WHT, 22 YLW, 23 BLK, 24 WHT, 25 GRN, 26 WHT, 27 BRN, 28 GRN, 29 RED, 30 WHT, 31 WHT, 32 BRN, 33 BLU, 34 WHT, 35 BLU, 36 GRN, 37 BRN, 38 YLW, 39 GRN) connecting the various components to the boiler's internal wiring.

